

WHAT IS CLAIMED IS:

1. A recording control apparatus which performs recording on a recording medium by using a recording head, said apparatus comprising:

5 said recording head which includes at least one recording element array in which plural recording elements are aligned along a predetermined direction;

 a driving correction table which includes pixel correction data for correcting a recording driving

10 characteristic of each recording element constituting said recording element array by the pixel unit of image data, and in which the pixel correction data is provided corresponding to plural lines of the image data; and

15 driving control means which modifies a recording driving time of each recording element of said recording element array by the pixel unit, on the basis of said driving correction table including the pixel correction data of the plural lines.

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2. An apparatus according to Claim 1, wherein said driving control means comprises:

 a correction memory for storing said driving correction table including the pixel correction data of the plural lines;

 correction pixel designation means for designating a correction pixel number of the pixel correction data

stored in said correction memory;

correction queue designation means for designating a correction queue of the pixel correction data stored in said correction memory; and

3. A recording control apparatus which performs
electrophotographic recording by using a recording head
arranged in a main scan direction perpendicular to a
movement direction of a recording medium, said
recording control apparatus comprising:

said recording head which includes at least one recording element array in which plural recording elements are aligned along said main scan direction;

20 a light quantity correction table which includes
pixel correction data for correcting a light emission
characteristic of each recording element constituting
said recording element array by the pixel unit of image
data, and in which the pixel correction data is
25 provided corresponding to plural lines of the image
data; and

driving control means which modifies a light

emission driving time of each recording element of said recording element array by the pixel unit, on the basis of said light quantity correction table including the pixel correction data of the plural lines.

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4. An apparatus according to Claim 3, wherein said driving control means comprises:

10 a correction memory for storing said light quantity correction table including the pixel correction data of the plural lines;

15 correction pixel designation means for designating a correction pixel number of the pixel correction data stored in said correction memory;

20 a correction queue designation means for designating a correction queue of the pixel correction data stored in said correction memory; and

25 driving time calculation means for calculating the light emission driving time of each recording element of said recording element array by the pixel unit, by using the pixel correction data of each line to which the correction pixel number and the correction queue have been designated.

5. An apparatus according to Claim 3, wherein
25 said recording element array includes at least one LED array in which plural LED elements are aligned along said main scan direction.

6. A recording control method which performs recording on a recording medium by using a recording head, the recording head including at least one recording element array in which plural recording elements are aligned along a predetermined direction, said method comprising:

10 a step of generating a driving correction table which includes pixel correction data for correcting a recording driving characteristic of each recording element constituting the recording element array by the pixel unit of image data, and in which the pixel correction data is provided corresponding to plural lines of the image data; and

15 a driving control step of modifying a recording driving time of each recording element of the recording element array by the pixel unit, on the basis of the driving correction table including the pixel correction data of the plural lines.

20 7. A method according to Claim 6, wherein said driving control step comprises:

a storage step of storing the driving correction table including the pixel correction data of the plural lines in a correction memory;

25 a correction pixel designation step of designating a correction pixel number of the pixel correction data stored in the correction memory;

a correction queue designation step of designating a correction queue of the pixel correction data stored in the correction memory; and

5 a driving time calculation step of calculating the recording driving time of each recording element of the recording element array by the pixel unit, on the basis of the pixel correction data of each line to which the correction pixel number and the correction queue have been designated.

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8. A recording control method which performs electrophotographic recording on a recording medium moving in a direction perpendicular to a main scan direction, by using a recording head which includes at 15 least one recording element array in which plural recording elements are aligned along the main scan direction, said recording control method comprising:

a step of generating a light quantity correction table which includes pixel correction data for 20 correcting a light emission characteristic of each recording element constituting the recording element array by the pixel unit of image data, and in which the pixel correction data is provided corresponding to plural lines of the image data; and

25 a driving control step of modifying a light emission driving time of each recording element of the recording element array by the pixel unit, on the basis

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of the light quantity correction table including the pixel correction data of the plural lines.

9. A method according to Claim 8, wherein said
5 driving control step comprises:

a storage step of storing the light quantity correction table including the pixel correction data of the plural lines in a correction memory;

10 a correction pixel designation step of designating a correction pixel number of the pixel correction data stored in the correction memory;

a correction queue designation step of designating a correction queue of the pixel correction data stored in the correction memory; and

15 a driving time calculation step of calculating the light emission driving time of each recording element of the recording element array by the pixel unit, on the basis of the pixel correction data of each line to which the correction pixel number and the correction queue have been designated.

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25 10. A method according to Claim 8, wherein the recording element array includes at least one LED array in which plural LED elements are aligned along the main scan direction.

11. A medium which stores a control program to

cause a computer to perform recording control for a recording medium, by using a recording head which includes at least one recording element array in which plural recording elements are aligned along a 5 predetermined direction,

10 said control program causing the computer to generate a driving correction table which includes pixel correction data for correcting a recording driving characteristic of each recording element constituting the recording element array by the pixel unit of image data, and in which the pixel correction data is provided corresponding to plural lines of the image data, and
15 to modify a recording driving time of each recording element of the recording element array by the pixel unit, on the basis of the driving correction table including the pixel correction data of the plural lines.

20 12. A medium according to Claim 11, wherein said control program causes the computer

to store the driving correction table including the pixel correction data of the plural lines in a correction memory,

25 to designate a correction pixel number of the pixel correction data stored in the correction memory, to designate a correction queue of the pixel

correction data stored in the correction memory, and
to calculate the recording driving time of each
recording element of the recording element array by the
pixel unit, on the basis of the pixel correction data
5 of each line to which the correction pixel number and
the correction queue have been designated.

13. A medium which stores a control program to
cause a computer to perform electrophotographic
10 recording control for a recording medium moving in a
direction perpendicular to a main scan direction, by
using a recording head which includes at least one
recording element array in which plural recording
elements are aligned along the main scan direction,
15 said control program causing the computer
to generate a light quantity correction table
which includes pixel correction data for correcting a
light emission characteristic of each recording element
constituting the recording element array by the pixel
20 unit of image data, and in which the pixel correction
data is provided corresponding to plural lines of the
image data, and
to modify a light emission driving time of each
recording element of the recording element array by the
25 pixel unit, on the basis of the light quantity
correction table including the pixel correction data of
the plural lines.

14. A medium according to Claim 13, wherein said control program causes the computer to store the light quantity correction table including the pixel correction data of the plural lines 5 in a correction memory, to designate a correction pixel number of the pixel correction data stored in the correction memory, to designate a correction queue of the pixel correction data stored in the correction memory, and 10 to calculate the light emission driving time of each recording element of the recording element array by the pixel unit, on the basis of the pixel correction data of each line to which the correction pixel number and the correction queue have been designated.

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15. A medium according to Claim 13, wherein the recording element array includes at least one LED array in which plural LED elements are aligned along the main scan direction.

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16. A recording control apparatus for controlling a recording element array, comprising: driving means for driving each of recording elements in the recording element array on the basis of 25 correction data for compensating a recording characteristic error of the recording element; and control means for periodically changing the

correction data used by said driving means for one recording element.

17. An apparatus according to Claim 16, wherein
5 said driving means changes a driving pulse width of
each of the recording elements in the recording element
array on the basis of the correction data.

18. An apparatus according to Claim 16, further
10 comprising storage means for storing the correction
data.

19. An apparatus according to Claim 16, wherein the recording element is a light emission element.

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20. A recording control method for recording an image by using a recording element array, said method comprising:

20 a driving step of driving each of recording elements in the recording element array on the basis of correction data for compensating a recording characteristic error of the recording element; and

25 a control step of periodically changing the correction data used in said driving step for one recording element.

21. A method according to Claim 20, wherein in

said driving step a driving pulse width of each of the recording elements in the recording element array is changed on the basis of the correction data.

5 22. A method according to Claim 21, further comprising a reading step of reading the correction data from a memory storing the correction data.

10 23. A method according to Claim 22, wherein the recording element is a light emission element.